

CHAPTER 131: CUTBACK ASPHALT AND EMULSIFIED ASPHALT

SUMMARY: This regulation applies to the mixing, storage, use, and application of cutback and emulsified asphalts.

1. Scope.

This regulation shall be applicable in all ambient air quality control regions in the State of Maine.

2. Definitions.

A. Asphalt. "Asphalt" means a dark-brown to black cementitious material (solid, semisolid, or liquid in consistency) of which the main constituents are bitumens that occur naturally or are a residue of petroleum refining.

B. Cutback Asphalt. "Cutback asphalt" means asphalt cement that has been liquefied by blending with petroleum solvents (diluent). Upon exposure to atmospheric conditions, the diluents evaporate, leaving the asphalt cement to perform its function.

C. Emulsified asphalt. "Emulsified asphalt" means an emulsion of asphalt cement and water that contains a small amount of an emulsifying agent; it is a heterogeneous system containing two normally immiscible phases (asphalt and water) in which the water forms the continuous phase of the emulsion, and minute globules of asphalt form the discontinuous phase.

D. Medium Curing Cutback Asphalt. "Medium curing cutback asphalt" means a material which meets the specifications of the American Association of State Highway and Transportation Officials (AASHTO) designation M82.

E. Penetrating prime coat. "Penetrating prime coat" means an application of low-viscosity liquid asphalt to an absorbent surface. It is used to prepare an untreated base for an asphalt surface. The prime coat penetrates the base, plugs the voids, and hardens and helps bind the top to the overlying asphalt course. The penetrating prime coat also reduces the necessity of maintaining an untreated base course prior to placing the asphalt pavement.

3. Prohibitions

A. Cutback asphalt shall not be used in the paving and maintenance of public roads and highways during the period May 1 through September 15 with the following exceptions:

1. The use of medium curing cutback asphalts solely as a penetrating primecoat for aggregate bases prior to paving;
2. The use of medium curing cutback asphalts for the manufacture of long-term storage or stockpiling of patching mixes used in pavement maintenance;
3. The use of cutback asphalts for which the user has demonstrated to the Department that minimal emissions shall occur under conditions of normal use. An acceptable demonstration of minimal emissions shall be the submittal to the Department of distillation test data (ASTM Method D-402, Distillation of Cutback Asphalt Products) showing less than 5% of the total solvent has evaporated up to and including 260 degrees C. (500 degrees F.).

B. Emulsified asphalt used in the paving and maintenance of public roads and highways shall contain no petroleum solvents except for uses and with maximum solvent contents (MSC) as demonstrated with the American Society for Testing Materials (ASTM) D-244-89 Standard Test Methods for Emulsified Asphalts as follows:

1. For use as seal coats, the MSC shall be 3%;
2. For use as chip seals when dusty or dirty aggregate is used, the MSC shall be 3%;
3. For use as seal coats or chip seals when good particle coating cannot be attained with emulsions containing 3% or less solvent, by weight, when tested according to the American Society for Testing Materials (ASTM) D-244-89 "Standard Test Methods for Emulsified Asphalts", Coatability Test, Sections 52 through 57, by the Maine Department of Transportation (MDOT) or an independently owned laboratory designated by the MDOT, the MSC shall be 5%;
4. For use as mixing with open graded aggregate that is not well washed, the MSC shall be 8%; and
5. For use as mixing with dense graded aggregate the MSC shall be 12%.

4. Recordkeeping.

The owner or operator of any facility subject to this regulation shall maintain records of the manufacture, mixing, storage, use or application of any asphalt containing volatile organic compounds (VOC) during the period May 1 through September 15. These records shall be available for inspection during normal business hours and copies shall be provided to the Department and/or E.P.A. upon request. All records must be maintained at the company's main headquarters for a period of 6 years.

5. Compliance Schedule.

The owner or operator of a source subject to this regulation shall achieve final compliance with this regulation on or before January 1, 1994.

BASIS STATEMENT : In Maine, nine counties are classified as nonattainment for the federal ozone air quality standard. Cutback asphalts and some emulsified asphalts contain VOC, which are precursors to ground-level ozone formation.

This cutback and emulsified asphalt regulation restricts the VOC content of emulsified asphalts and restricts the use of cutback asphalts. Under Section 184 of the Clean Air Act Amendments of 1990, the State must submit plans to control VOC emissions from all sources covered by a Control Technique Guideline (CTG) issued before November 15, 1990.

In addition to the Basis Statement above, the Department has filed with the Secretary of State responses to comments received during the comment period.

AUTHORITY: 38 M.R.S.A., Section 585-A

EFFECTIVE DATE: February 10, 1993